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Conference Abstract

Next Steps in the Evolution of the Scratchpads Virtual Research Platform: A framework for the evaluation of data storage alternatives for Scratchpads

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Abstract

The Scratchpads virtual research platform is widely used by more than a thousand communities to share and manage biodiversity data. It is an open source project that can be run by any individual, but most sites are hosted on a dedicated service run by the Natural History Museum London.

After 12 years of use and several major upgrades, the size and complexity of the Scratchpads codebase makes it increasingly difficult to maintain. The underlying content management system (Drupal 7) reaches its end of support in November 2022, providing a further justification to migrate Scratchpad sites to a new, more sustainable platform, at the same time allowing us to improve standards compliance and add functionality for users.

Building on the work initiated at the Biodiversity_Next symposium SI46 Biodiversity Virtual Research Environments: past, present & possible futures, we identified the need to decouple the front and backend components of the architecture. This allows for a simpler migration path for our existing sites, allowing us to migrate the Scratchpad data to alternative backend platforms while retaining the familiar front end experience for users.

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This decoupling approach is more sustainable, affording potential for deep collaboration on the backend and its associated API (application programming interface).

Analysis of current Scratchpad user activities shows that the data requirements of Scratchpads sites vary significantly. To support this variation, a successor platform must incorporate a well-defined API that can give an individual site flexibility in the choice of a backend. In this presentation we will update the community on our efforts to evaluate alternative backend platforms (both domain-specific and generalist), considering an assessment derived from the Technology Readiness Level (TRLs) of these systems, and their functionality fit with current Scratchpad features. We will discuss our evaluation approach and the results of this study, taking into account the diverse nature of these systems and their fit to our criteria. This approach may be useful to others when addressing similar challenges for evaluating choices on platform migration, and may help to identify gaps or overlapping features in the virtual research software ecosystem. These gaps and overlaps can then be addressed in collaboration with other platform developers. Finally, we will present our preliminary recommendations and invite further input from developers and stakeholders.

Keywords

VRE, taxonomic workbench, biodiversity data, open source, platform migration, research software

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